

IAP11 Rec'd PCT/PTO 16 AUG 2006

ATTACHMENT A

Claims 1 - 10: (Cancelled)

11. (New) A catalyst system obtained by a process comprising:

- contacting:

(i) a partially dealcoholated adduct of formula $MgT_2 \cdot wR'OH$, wherein

T is chlorine, bromine, or iodine;

R' is a linear or branched C_1 - C_{10} alkyl radical; and

w is a non-integer number ranging from 3 to 0.1;

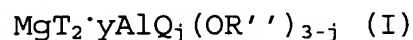
with

(ii) an organo-aluminium compound of formula H_eAlU_{3-e} or $H_eAl_2U_{6-e}$, wherein

U, same or different, are hydrogen, halogen, or hydrocarbon radicals comprising from 1 to 20 carbon atoms, and optionally comprise at least one silicon or germanium atom; with the proviso that at least one U is different from halogen; and

E is a non-integer number ranging from 0 to 1;

to obtain an adduct of formula (I)



wherein

y ranges from 1.00 to 0.05;

Q, same or different, are hydrocarbon radicals comprising from 1 to 20 carbon atoms, and optionally comprise at least one silicon or germanium atom;

R'' is a linear or branched C_1 - C_{10} alkyl radical; and

J is a non-integer number ranging from 0.01 to 3.00;

and

- contacting the adduct of formula (I) with at least one metallocene compound comprising titanium as a central metal and at least one ligand comprising a cyclopentadienyl skeleton;

with the proviso that the metallocene compound has not been previously treated with an organo-aluminium compound of formula H_eAlU_{3-e} or $H_eAl_2U_{6-e}$, or an alumoxane.

12. (New) The catalyst system according to claim 11, wherein T is chlorine; R' is a linear C_1 - C_{10} alkyl radical; and w is a non-integer number ranging from 3 to 0.5.

13. (New) The catalyst system according to claim 11, wherein U is a linear or branched C_1 - C_{20} -alkyl radical.

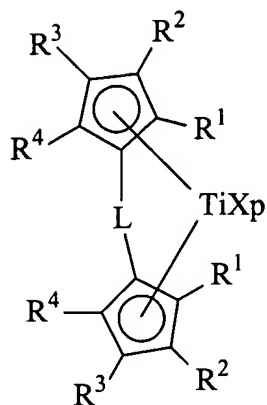
14. (New) The catalyst system according to claim 11, wherein y ranges from 0.50 to 0.10; and j is a non-integer number ranging from 2.50 to 2.00.

15. (New) The catalyst system according to claim 11, wherein the adduct of formula (I) has a surface area (BET) higher than $30 \text{ m}^2/\text{g}$.

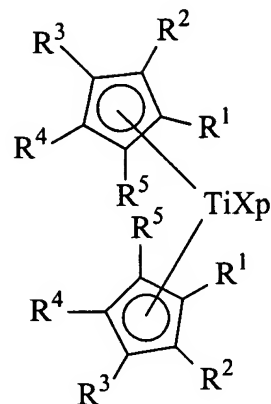
16. (New) The catalyst system according to claim 11, wherein the adduct of formula (I) comprises generally between $1000 \text{ } \mu\text{mol/g}$ to $1 \text{ } \mu\text{mol/g}$ of the metallocene compound, and the adduct of formula (I) supports the metallocene compound after the adduct of formula (I) is contacted with the metallocene compound.

17. (New) The catalyst system according to claim 11, wherein the metallocene compound is a titanocene compound

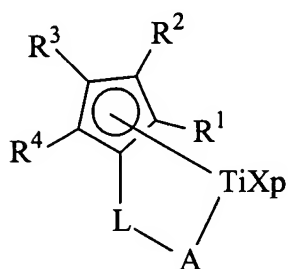
comprising at least one of formulas (II), (III), (IV) or (V):



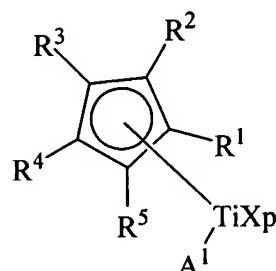
(II)



(III)



(IV)



(V)

wherein

Ti is titanium;

X, same or different, are monoanionic sigma ligands selected from the group consisting of hydrogen, halogen, R^6 , OR^6 , $OCOR^6$, SR^6 , NR^6_2 , and PR^6_2 , wherein R^6 is a hydrocarbon radical comprising from 1 to 20 carbon atoms, wherein R^6 optionally comprises one or more Si or Ge atoms;

p is an integer ranging from 1 to 2;

L is a divalent bridging group selected from a C_1 - C_{20} alkylidene, a C_3 - C_{20} cycloalkylidene, a C_6 - C_{20} arylidene, a C_7 - C_{20} alkylarylidene, or a C_7 - C_{20} arylalkylidene radical optionally comprising at least one heteroatom belonging

to groups 13-17 of the Periodic Table of Elements, and a silylidene radical containing up to 5 silicon atoms;
R¹, R², R³, R⁴ and R⁵, same or different, are selected from hydrogen and C₁-C₄₀ hydrocarbon groups optionally comprising one or more heteroatoms belonging to groups 13-17 of the Periodic Table of Elements; or two adjacent R¹, R², R³, R⁴ and R⁵ form at least one 3-7 membered ring optional comprising one or more heteroatoms belonging to groups 13-17 of the Periodic Table of Elements;
A is NR⁸, O, or S, wherein R⁸ is a C₁-C₂₀ hydrocarbon group optionally comprising one or more heteroatoms belonging to groups 13-17 of the Periodic Table of Elements;
A¹ is hydrogen, halogen, R⁶, OR⁶, OCOR⁶, SR⁶, NR⁶₂, PR⁶₂, or NR⁹, wherein R⁶ is a hydrocarbon radical comprising from 1 to 20 carbon atoms, wherein R⁶ optionally comprises one or more Si or Ge atoms; and R⁹ is a C₁-C₄₀ hydrocarbon group optionally comprising one or more heteroatoms belonging to groups 13-17 of the Periodic Table of Elements;

18. (New) A process for (co)polymerizing at least one olefin comprising from 2 to 20 carbon atoms comprising contacting the at least one olefin under polymerization conditions in presence of the catalyst system of claim 11.

19. (New) The process according to claim 18, wherein at least one alpha-olefin is (co)polymerized.

20. (New) The process according to claim 19, wherein the alpha-olefin is selected from propylene, ethylene, 1-butene, 1-hexene, 1-octene, and combinations thereof.